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Cultural perspectives on the linguistic representation of emotion and emotion events

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It is argued that the linguistic representation of emotions and events giving rise to them is influenced by the cultural regulation of the relationship between a person and others. Such cultural variations are expected to be reflected in how emotions and emotion events are represented in language. The two studies provide support for the hypothesis that in a culture where relationships and interdependence are valued emotion terms function as relationship-markers and emotion events are represented by the use of concrete linguistic terms when compared with cultures that emphasise the value of the individual. Moreover, we also found support for the argument that emotion terms function predominantly as self-markers in cultures that value individuality and that they are represented by more abstract terms (adjectives, nouns). The implications of these findings are discussed.

The two studies reported here examine cultural variations in the linguistic representation of emotions, and events that give rise to emotions by investigating how people talk about them. We focus on talk and in particular on specific linguistic features of words used in emotion-talk, because our linguistic habits are shaped by recurrent cultural patterns of representing, acting, feeling, interpreting, and experiencing social events. Differences in cultural practices are therefore likely to give rise to variations in recurrent features of talk. For instance, variations in how the person is culturally construed is likely to imply different constructions of emotions, since emotional events predominantly characterise the qualities of the types of relationships between a person and his/

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her social world (Markus & Kitayama, 1991, 1994). Accordingly, the cultural formation of the person can be regarded to play an important role in shaping the interpretation of emotions and the events giving rise to them across cultures (cf. Hofstede, 1980; Markus & Kitayama, 1991; Mauss, 1938/1985; Sampson, 1985; Semin & Rubini, 1990; Shweder & Bourne, 1982; Triandis, 1988, 1989, 1994a,b; 1995, inter alia). As Kitayama, Markus, and Matsumoto (1995) argue emotions play a central role in ''managing relationships with other persons, defining the self, maintaining the self's worth or dignity and organising appropriate action in many social situations'' (p. 442). One would therefore expect an individual-centred management of social events (cognitively and emotionally) to be a prominent feature in cultures that value individualism. In contrast, if a socio-centred management of events is a central cultural practice, then emotional events will be construed primarily interpersonally. As a consequence, one would expect emotion terms to be more prominent or accessible as *relationship-markers* in cultures where thoughts, feelings, and actions in conformity and harmony with in-group members are valued and where group-goals prevail over individual-goals. In contrast, in cultures where individual preferences and goals frequently prevail over group goals, and thoughts, feelings, and actions independently of others are emphasised emotions are more likely to be individual or *self-markers*.

One possible way of discovering whether emotions are used as *relationship-markers* versus *self-markers* is by means of the relative prominence of different grammatical categories (e.g., verbs, adjectives, and nouns) that are spontaneously mentioned. In the research we report here, the *linguistic category model* (LCM; Semin & Fiedler, 1988, 1991) provided a framework to examine the relative prominence of different emotion terms and the linguistic characteristics of emotion event descriptions. This is a model of interpersonal language that furnishes the means to investigate—among other things—the type of linguistic devices that are used to represent particular events. In this model, a distinction is made between four different categories of interpersonal terms. *Descriptive-action-verbs* are the most concrete terms and are used to convey a description of a single, observable event and preserve perceptual features of the event (e.g., ''A punches B''). Similarly, the second category *(interpretive-action-verbs)* describes specific observable events. However, these verbs are more abstract in that they refer to a general class of behaviours and do not preserve the perceptual features of an action (e.g., ''A hurts B''). The next category (*state-verbs*) typically describes an unobservable emotional state and not a specific event (e.g., ''A hates B''). Finally, *adjectives* (e.g., ''A is aggressive'') constitute the last and most abstract category. These generalise across specific events and objects and describe only the subject. They show a low contextual dependence and a high conceptual interdependence in their use. In other words, the use of adjectives is governed by abstract, semantic relations rather than by the contingencies of contextual factors. The opposite is true for action verbs (e.g.,

Semin & Fiedler, 1988; Semin & Greenslade, 1985). The most concrete terms retain a reference to the contextual and situated features of an event.

We applied this model to examine different facets of emotion terms and emotion events in the two comparative studies reported below. The general hypothesis behind these studies was the following. In cultures where group-goals and thus the value of relationships prevail over individual ones concrete language use (e.g., predominantly interpersonal verbs) will be more accessible than abstract language (e.g., adjectives, nouns), because concrete language marks relationships and preserves situational information. However, in cultures where individual goals and preferences are more prominent, we expected abstract language to be more accessible. In the first study, we focused on (a) the relative prominence of different linguistic categories in the spontaneous listing of emotion terms. This language-based analysis was complemented by examining (b) whether the causes of emotion events are perceived to be predominantly individual or interpersonal; and (c) the degree to which significant others are perceived to shape emotion events. The second study investigated cultural variations in the degree to which free descriptions of emotion events are seen as person-centred. This was determined by using the LCM to investigate the relative abstractness or concreteness of the events as a function of culture.

STUDY 1

The first issue that we examined was driven by the following considerations. If distinctive linguistic expressions of emotion function as either relationship or individual, self-markers, then there should be systematic differences in their accessibility as a function of cultural background. What does this mean within the general framework of the LCM? One can make a general distinction between interpersonal verbs and adjectives and nouns (Semin & Fiedler, 1991). Sentences with interpersonal verbs always require a subject and an object. Interpersonal verbs are transitive and always represent an event in terms of the relationship between two people. Interpersonal adjectives do not. They are decontextualised qualifiers of persons. In the context of the first study, we were particularly interested in the relative prominence of verbs of state (e.g., to love, to surprise, to envy) versus adjectives (e.g., love, surprised, envious) as a function of the cultural background of people.

An objection that one may raise against classifying nouns or adjectival emotion terms as decontextualised self-markers is that their referents always implies a relationship and cannot be conceived of otherwise. To be in love, envious, or surprised always involves some other for this individual state to be present in the first place. Obviously, this is correct of any emotion-term—emotions are regulatory states in relation to ''something'' or ''somebody''. However, there is always a choice to express a relation by either incorporating the object of emotion as an integral part of a linguistic representation (e.g., ''I

envy Agneta'') or decontextualising the state from the object, as is apparent in cases such as ''I am envious'', or ''I am ashamed'', ''I am angry''. In these latter cases, the choice of an adjective in sentence construction is a preferential expression of the individual's state rather than the explicit expression of a relationship in which the state arises. If people are asked to spontaneously generate as many emotion-terms as they could think of, then the relative proportion of relationship-markers (state verbs) and self-markers should vary as a function of the cultural prevalence of whether emotion events are managed in an individual or socio-centred manner. Our first hypothesis was therefore the following.

1. For participants from a cultural background where the value of relationships and group-goals is prominent, linguistic categories marking relationships (state verbs) should be more accessible than those marking the self (adjectives, or nouns). The reverse pattern was predicted for participants who emphasise the value of the individual.

The study had two further facets. The first one was designed to investigate the type of emotion events (i.e., significant emotion events or significant life events) that are freely generated. In particular, we were interested to examine whether the type of events that participants generate would typically be more interpersonal or individual events as a function of the cultural background of our participants. The type of difference that we were interested in would be between ''being delighted or happy to meet an old friend after many years'' (interpersonal event) versus ''being delighted or happy to pass a difficult exam'', or ''winning in a lottery'' (individual-centred event). We hypothesised that:

2. Members of a culture for whom relationships are more significant are more likely to generate interpersonal emotion events than members of a culture that emphasise the value of the individual. In the latter case, we expected relatively more mention of individual emotion events.

Finally, this study included an investigation of the influence that significant others have upon the shaping of critical, emotion-inducing life events (e.g., marriage, beginning a new job). A critical life event has a strong emotional impact and can make deep inroads on a person's life. The shaping of such an event is culturally informative because it provides another construct to demonstrate differences in the representation of how emotions are constituted. For members of a cultural community that emphasises the importance of relationships, significant others were expected to be influential in the shaping of critical life events—something that was not predicted in the case of communities that value individualism. Our final hypothesis was:

3. In cultural communities that emphasise relationships significant others (i.e., parents, relatives, and friends) would be perceived as more influential in shaping critical life events, than in individual-centred cultures.

Method

Overview. Hindustani-Surinamese and Dutch participants were given four tasks. The first consisted of an emotion-term generation task, in which they had to list as many emotion terms that came to their mind. Then, half of the subjects were given the task of generating examples of five critical life events, whereas the other half were asked to generate five critical emotions that one can experience. The first group then had to generate the emotions that are likely to occur in such critical life events. In contrast, those who listed the critical emotional experiences had to list the types of situations that were likely to give rise to them. Finally, they all had to judge the relative contribution that significant others (family, friends, etc.) made to shape the events that they had listed. The critical between-subjects variable was culture (Hindustani-Surinamese vs. Dutch). Each task had different within-subjects variables that are elaborated upon in the method and results sections.

Participants. A total of 84 participants (35 females and 49 males) took part in this study on a paid voluntary basis. Forty-six of the participants (20 males and 26 females) were Dutch ($M_{Age} = 22.77$ years; SD = 3.26) and 38 (21 males and 17 females) were Hindustani-Surinamese ($M_{Age} = 22.84$ years; SD = 2.62). The Dutch sample consisted only of native Dutch speakers. They were all students at the Free University. The Hindustani-Surinamese participants were selected on the basis of their chief conversational language in their social life, which was Hindustani. All these participants could read *and* write Hindustani; they were all bilinguals (they could also speak Dutch). Except for six, all the Surinamese participants were born in Surinam and had been in the Netherlands for an average of 12.14 years. All Hindustani-Surinamese were students at the Free University, except for two who were already in employment. One Hindustani-Surinamese participant did not specify his occupation. The fact that our Hindustani-Surinamese participants were all resident in Amsterdam means that despite a strong sense of cultural identity with strong group and family ties, they were nevertheless exposed to a Western individualistic culture. It should be noted that this inevitable bias created by their exposure could be regarded as working against rather than in favour of the hypotheses under consideration.

Additionally, we administered a 17-item independence-interdependence scale with three subdimensions to measure the cultural orientation of the two samples (Semin, Semin-Goossens, & Taris, 1996). This scale showed that the two samples differed from each other in the expected direction. The three subscales were: (1) *Traditional interdependence*. This scale measures an element of

continuity in a stable social and physical environment. This sub-scale comprises of items that identify a social coexistence form that remains stable and is also geographically fixed. (2) *Independence-dependence*. This subscale is characterised by items that have to do with how problem solving and decision making are tackled, namely individually or in consultation with others. (3) *Family interdependence*. This scale focuses on reliance upon family and friends in general, that is with regard to problems, happiness, and the role of respect in socialisation. A multivariate ANOVA using these three scales as dependent variables with culture and sex as between-subjects factors yielded a significant multivariate main effect for Culture, $F(3, 76) = 26.87$; $p < .001$. The univariate analyses showed that the Hindustani-Surinamese and the Dutch differed significantly on two of the three subdimensions. The main difference is manifested in the traditional interdependence measure, $F(1, 78) = 52.34$; $p < .01$, where the Hindustani-Surinamese scored significantly higher ($M = 3.27$) than did the Dutch ($M = 1.92$). No significant interactions with sex were found. The significant difference on the second subdimension (independence-dependence), $F(1, 78) = 4.75$; $p < .05$, showed that the Dutch scored higher ($M = 3.81$) with regard to consulting others or relying on second opinions on important decisions and problems than did the Hindustani-Surinamese ($M = 2.29$).[1]

Procedure. Participants were given a booklet. The first page had a very brief instruction (in the respective languages of the participants) in which they were simply asked: ''Please list as many emotion words that come to your mind—if the space below is not sufficient then you can use the back of this page''. All participants received this spontaneous emotion generation task first, because we did not want their responses to this task to be influenced by possible demands that may have been generated by the other tasks (e.g., whether significant others may shape an emotion event). Moreover, we assumed that a free emotion-term generation task would be unlikely to prime their subsequent answers in any systematic way since the remaining tasks asked for explicit judgements or event descriptions.

After completing this task participants were randomly allocated into one of two conditions. Half of the participants received the following instruction (*critical event condition*): ''We are interested in specific events that can influence a person's life in a critical manner. To contrast, there are a number of events that happen in daily life, which have no particular long-term consequences for a person's life. In the following, we would like you to list 5 critical life events that can make deep inroads on a person's life.'' Twenty-three Dutch and 18 Surinamese participants were in this condition. After the participants completed the critical event task, they were asked to list the emotion(s) that somebody would experience during each of these events.

[1] Scales and scale construction data can be obtained from the first author.

The remaining half of the participants received identical introductory instructions except that in their case the word ''event'' was substituted by ''emotional experience'' (*critical emotional experience condition*). Twenty-three Dutch and 20 Hindustani-Surinamese participants were in this condition. After having written down the critical emotional experiences, they were asked to list the types of events that they thought would lead to these emotional experiences. Thus, for each of the five emotions they listed the types of events that would give rise to the emotion.

All participants were then asked to turn back at the very first list of emotions they had generated. They were asked to take the first, the fourth and the last emotion from this list (thus randomising the type of emotion examined and its salience) and write down the events that they thought would give rise to these emotions.

Finally, participants were asked to rate the five critical life events that they had generated on six scales. The instruction was as follows: ''Please indicate how likely or unlikely it is that each of the five critical life events that you have listed is influenced by each of the following persons''. They were then given detailed instructions of the meanings of the 7-point scale, the ends of which were anchored with ''highly improbable'' (1) and ''highly probable'' (7). For each event they had to rate the degree to which: (a) they themselves; (b) their parents; (c) their relatives—other than parents; (d) their friends; (e) others; and, (f) uncontrollable factors were likely to influence the event.

Results

The emotion-generation task. We start with the analysis of the general features of the responses participants gave to the first task of listing as many emotion terms as came to their minds. Thereafter we turn to the analyses examining the specific hypothesis regarding the differences in which emotions are coded grammatically in language.

In a first analysis, we calculated the total number of emotions that each participant listed. Dutch participants mentioned a significantly higher number of emotions ($M = 10.24$; $SD = 2.94$) than did the Hindustani-Surinamese ($M = 5.89$; $SD = 2.56$), $F(1, 80) = 43.82$; $p < .001$.

The main hypothesis was examined by analysing the relative proportion of grammatical categories utilised in the listing of emotions.[2] Each emotion word that was mentioned was categorised either as a verb of state (to hate). an

[2] The grammatical category analysis is much more self-evident in Dutch and Hindustani-Surinamese than in English. In English, a participant could list ''love, hate, surprise'' and could be referring to either a verb or a noun rendering the analysis of grammatical category somewhat difficult. Both the Dutch or Hindustani-Surinamese language do not pose this difficulty because the three grammatical categories have manifestly distinct forms which are very clearly distinguishable (e.g., in Hindustani: love ≈ *pyar*; to love ≈ *pyar karna*; lovely ≈ *pyari*, etc. In Dutch: surprise ≈ *verrassing*; to surprise ≈ *verrassen*; surprising ≈ *verrassend*).

TABLE 1
Relative proportion of grammatical categories mentioned in the emotion generation task as a function of culture

	State verbs	*Adjectives*	*Nouns*
Hindustani-Surinamese	0.30 (SD = 0.14)	0.18 (SD = 0.22)	0.52 (SD = 0.28)
Dutch	0.14 (SD = 0.24)	0.26 (SD = 0.31)	0.60 (SD = 0.37)

adjective (hateful), or a noun (hate). A MANOVA was conducted using culture (Dutch vs. Hindustani-Surinamese), and sex (Female vs. Male) as the two between subjects variables and grammatical categories as repeated measures (verbs vs. nouns). We did not use all three dependent variables (i.e., verbs, nouns and adjectives) as the three levels of grammatical category are tied and the proportions add up to 1.00. This MANOVA yielded the expected multivariate main effect for culture, $F(3, 77) = 3.33$; $p < .05$. The univariate tests revealed that there was a significant difference between the cultures for the proportion verbs used, $F(1, 74) = 8.43$; $p < .005$, and a tendency for the proportion of nouns used, $F(1, 74) = 2.93$; $p < .10$. As can be seen in Table 1, the Hindustani-Surinamese mentioned more state verbs than did the Dutch and tended to use somewhat fewer state referent nouns than did the Dutch. The respective proportions of adjectives for the Hindustani-Surinamese and the Dutch was not significant, $F(1, 74) < 1.00$).

Use of grammatical emotion categories in events. Next, we analysed the emotions that participants had generated for the critical life events or critical emotion experience tasks in terms of the grammatical categories. This MANOVA had three between-subjects variables, namely, culture, sex, and version (event task first vs. emotion task first). The dependent variables in this case were the proportion of the verbs, adjectives, and nouns that were mentioned. All three were entered into the analysis because 5% of the answers by the Dutch and 3% of the answers by the Surinamese could not be coded thereby removing the interdependence between the three variables. The multivariate main effect for culture was significant, $F(3, 77) = 4.50$; $p < .006$). The univariate analyses provided support for the general hypothesis. The Hindustani-Surinamese sample mentioned more verbs ($M = 0.30$; SD = .33) than did the Dutch ($M = 0.10$; SD = 0.25), $F(1, 75) = 11.08$; $p < .001$, but a significantly lower proportion of nouns ($M = 0.59$; SD = 0.33) than did the Dutch ($M = 0.82$; SD = 0.30), $F(1, 75) = 11.33$; $p < .001$. The univariate culture effect using proportion of adjectives as the dependent variable was not significant. These results mirror those obtained in the first task and suggest that the first finding is a stable one.

The second hypothesis was that Hindustani-Surinamese participants would generate relatively more interpersonal events as giving rise to emotional experiences than did the Dutch. For these analyses we had two separate measures. The first one came from the five critical life events that participants had listed. The second set consisted of the events that they generated as giving rise to the first, fourth, and final emotions on the very first emotion-term generation task. The respective events mentioned by each participant were coded by two independent coders as either an interpersonal event (e.g., meeting an old friend, being helped by a colleague, etc.) or a noninterpersonal event (e.g., passing an exam, winning in a lottery, etc.) The overall intercoder reliability[3] was high ($r = .87$).

The first analysis used the number of interpersonal events (out of a total of five for each participant) mentioned by the participants as the dependent variable in an ANOVA with culture (Hindustani-Surinamese vs. Dutch) and sex (female vs. male) as the two between-subjects variables. We obtained only a significant main effect due to culture, $F(1, 36) = 5.70$; $p < .03$. Consistent with our expectations, the Hindustani-Surinamese participants mentioned significantly more interpersonal events ($M = 3.59$; $SD = 1.50$) than did the Dutch ($M = 2.65$; $SD = 0.89$). An analysis of the relative proportion of interpersonal events resulted in the same outcome. This two-way ANOVA also yielded only a significant main effect for culture, $F(1, 74) = 7.89$, $p < .006$, supporting the prediction that the Hindustani-Surinamese participants mentioned relatively more interpersonal events ($M = 0.61$; $SD = 0.23$) than did the Dutch participants ($M = 0.51$; $SD = 0.19$).

The contribution of significant others to critical life events. For Hindustani-Surinamese participants, we expected significant others (e.g., parents, friends, and family) to have a stronger influence on the shaping of critical life events than for the Dutch. With respect to the latter group, we expected the ''self'' to be regarded as more influential than significant others. To this end we performed a multivariate analysis of variance, with culture and sex as the two between-subjects variables and the likelihood ratings for the influence of self, parents, family, friends, others, and uncontrollable factors on the shaping of the event as dependent measures. This analysis yielded only a significant multivariate main effect for culture, $F(5, 76) = 5.82$; $p < .001$, supporting the prediction. The univariate analyses yielded significant main effects for the influence exerted by self, $F(1, 80) = 4.02$; $p < .05$; parents, $F(1, 80) = 17.96$; $p < .001$, family, $F(1, 80) = 24.37$; $p < .001$, and friends, $F(1, 80) = 11.70$; $p < .001$. As can be seen

[3] One of the coders was fluent in Hindustani and Dutch, the second only in Dutch. The first translated all the events listed by the Hindustani-Surinamese subjects into Dutch. She then coded the both the Dutch events and the Hindustani Surinamese events in their respective languages. The second coder did the same except that in this case all events were in Dutch.

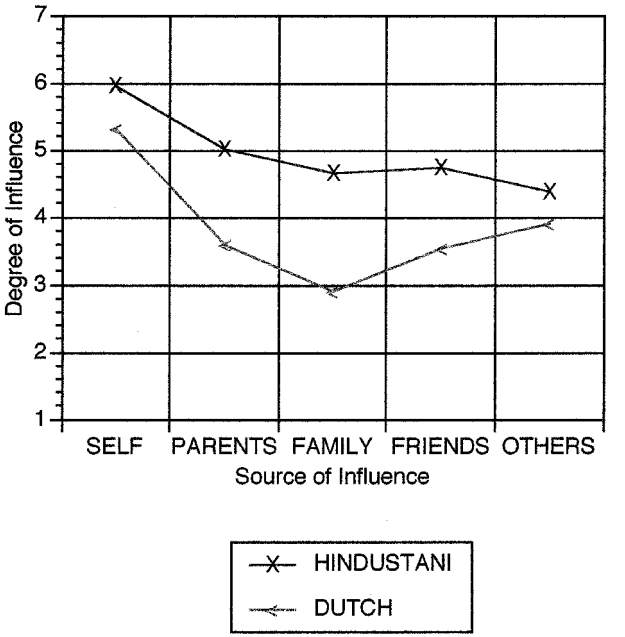

Figure 1. The relative contribution of parents, family, and friends to critical life events.

in Figure 1, all these main effects are in the expected direction, showing that for the Hindustani-Surinamese sample, Self, Parents, Family, and Friends exert a stronger influence on the shaping of major life events than it did for the Dutch.

Discussion

The results of this study display a convergent pattern in the three general features of emotion events that were examined here. First, we found as predicted that the proportion of state verbs accessed by the Hindustani-Surinamese participants is twice as much as the proportion mentioned by the Dutch. These results suggest that the active emotion vocabularies of the two communities display a systematic difference in terms of the feature under investigation, namely, the grammatical category by which emotions are marked. Moreover, we found that the same pattern is consistent and holds irrespective of whether participants are asked to list five significant emotions or list emotions associated with critical life events. The Hindustani-Surinamese sample produces a higher proportion of emotion-terms that mark interpersonal relationships (i.e., verbs) when compared with the Dutch sample where emotions are more likely to be marked in terms of abstracted or decontextualised states (namely nouns). These findings provide support for the notion that the linguistic construction of

emotional events may vary systematically between cultures. This evidence is not in terms of the particular content of the emotions in question, their intensity or semantic signification, but rather the differential accessibility of specific grammatical categories in the two samples.

We know that interpersonal verbs constitute a more concrete grammatical category than adjectives and nouns (cf. Semin & Fiedler, 1988, 1991). Whereas interpersonal verbs (or verbs of state, such as *to like*, *to surprise*) can only be used with a sentence subject and object and refer to a particular event or concrete relationship between a subject and an object, adjectives and nouns abstract from the immediacy of events. They refer to qualities or qualitative states of the person that are detached from a specific constellation. One implication of this finding is that, for the Hindustani-Surinamese, emotions are more concrete events that are anchored more directly in the here and now. In contrast, for the Dutch, emotions are marked more prominently as intrapersonal states. They are abstracted from the here-and-now and thus decontextualised to the level of the experiencing person. That is, for them emotions are marked more abstractly overall than for the Hindustani-Surinamese. Whereas for the Hindustani-Surinamese emotions are more strongly indicative of *interpersonal* rather than solitary experiences, for the Dutch emotional experience is marked by the predominant use of individual-centred and decontextualised terms. The systematic differences in grammatical category can also be seen as providing *indirect* evidence for the same conclusion. Although emotional experience is more an *inter*-psychological event for the Hindustani-Surinamese, it constitutes an *intra*-psychological one for the Dutch.

Whereas the analysis addressed linguistic features of spontaneously elicited emotion terms, the next analysis addressed the characteristics of events that give rise to emotions. Again, we deployed different methods to elicit the reports of events that are associated with emotions. Irrespective of whether participants were asked to note significant life events, or to simply write down those events that gave rise to three of the emotions which they listed, we found a pattern that converged with the emotion data. Hindustani-Surinamese participants listed proportionately more interpersonal events than did the Dutch participants—irrespective of the method that was used to elicit these events. These results provide evidence for the hypothesis that for the Hindustani-Surinamese participants' emotional events are predominantly interpersonal ones, whereas for the Dutch participants they constitute individual-centred events and experiences.

The final source of evidence provided by the results concerns the role different people play in shaping critical life events. The Hindustani-Surinamese perceived that the shape of significant life events is strongly influenced by significant others, namely, family, friends, and parents. This finding is consistent with the fact that they also construed emotions in interpersonal terms, and regard emotion events to be interpersonal. In contrast, for the Dutch the pattern is reversed, as expected. We found that if one compares the relative influence of

self to the influence that their parents, family, friends, or others may have then the self was perceived to influence significant life events significantly more relative to all these other target groups. In this type of cultural context, parents, family, and friends turn out not to be very significant in the shaping of important events. In turn, this is consistent with the findings that for them emotions are predominantly individual experiences as are the events that give rise to them.

STUDY 2

In a second study we addressed the linguistic structure of emotion events in a different way. The focus of the first study was on the differential accessibility of grammatical categories as a function of participants' cultural background. In the second study we examined whether the overall pattern of predicate use (e.g., verbs and adjectives) in the representation of an emotion event varies as a function of cultural background. There is earlier work on cultural differences in attributional tendencies (e.g., Miller, 1984; Morris & Peng, 1994; Semin & Zwier, 1997; Shweder & Miller, 1985). This research suggests, for instance, that Indian participants use a more concrete situationalist attributional style than, for instance, their more individualistic American counterparts (e.g., Miller, 1984). The general finding across diverse studies is that individual-centred cultures preferentially deploy internal attributes of persons in representing social events, whereas relationship centered cultures resort to focal or situational features. To our knowledge, this pattern of outcomes has as yet not been examined in the context of emotion events. Moreover, the linguistic category model provides a systematic tool for the examination of the relative abstractness of event representations as a function of cultural differences. As we mentioned earlier, the LCM permits an examination of the degree to which a representation of an event is abstract or concrete, as measured by the types of predicates used in an event description (see Semin & Fiedler, 1989, and the Method section below). The following hypothesis was tested in this study. The language used to represent emotion events should be more abstract in cultures where individual preferences and goals prevail over group goals. In contrast, in cultures where relationships are valued emotion events should be represented by the use of more concrete language. Abstract and concrete were operationalised in terms of the linguistic category model.

Method

Participants. A total of 165 students participated in the study on a paid voluntary basis. They consisted of 83 Dutch students from the Free University Amsterdam (41 men and 42 women, with a mean age of 21.8 years) and 82 participants from two universities in Turkey, one in Istanbul and the other in Mersin. The Turkish sample consisted of 40 men and 42 women, with a mean age of 22.4 years.

Procedure. Participants filled out a questionnaire which consisted of two parts: An event-description task and an emotion-description task. They received one of two different versions of the questionnaire. These versions differed as to whether participants were asked to report about himself or herself or about a close friend of the same-sex.[4] In the first version, they were asked to describe a positive and a negative event which they themselves had experienced and which had had a significant impact on them. They were given 10 lines to describe each event. After they had completed the first event-description, they were asked to name the emotions that they had experienced during this event. They had 8 lines for this. They were then asked to describe the second event and subsequently the particular emotions experienced in this event. The order in which they described the positive and negative event was randomised. The second version of the questionnaire asked participants to think about a close friend of the same sex. Their task was identical to the self-referent task, except that it was now for a close friend. The procedure was similar to the first version of the questionnaire.

Participants completed the questionnaires in their native language. The Dutch version was translated into Turkish and then back-translated by an independent translator (Brislin, 1970) in order to ascertain for equivalence in meaning between the two questionnaires.

Design. The event- and emotion-description tasks both consisted of a 2 (culture: Dutch vs. Turkish) × 2 (target: self vs. friend) × 2 (event valence: positive vs. negative) design with the last variable as a within-subjects variable. The effects for the target variable will not be discussed as this variable did not show any systematic effect whatsoever.

Coding of open-ended answers. The Dutch data were coded by one of the authors and the Turkish data by a Turkish Dutch bilingual who had received extensive instructions about the coding proceeding. Before coding the Turkish data, the bilingual coded 10% of all Dutch data (inter-rater reliability, $r = .85$). Differences between both coders on the Dutch data were resolved by discussion before the bilingual started coding the Turkish data.

Dependent variables. In the case of the emotions we first calculated the number of discrete emotion terms that were listed (e.g., ''disappointment'', ''frustration'', and ''I hated him'' were coded as three distinct emotion terms). Then the overall *abstraction of* the *emotions* was coded. This involved coding each emotion reference as either adjectives or nouns (e.g., ''happy'' or ''sadness''), state verbs (e.g., ''to hate''), interpretative action verbs (e.g., ''to fall silent''), and descriptive action verbs (e.g., ''to cry'') (see Semin & Fiedler, 1988, 1991 for details of the linguistic category model). These categories reflect

[4] The self-other condition was introduced to control for the potential contribution of perspective upon emotion events. As it turned out this variable did not yield any systematic effects.

an increase in abstraction from descriptive action verbs to adjectives or nouns. Weights were applied to these categories in such a way that a higher score reflects a higher level of abstraction (see Semin & Fiedler, 1989). This was accomplished by a simple monotonic weighting scheme using 1, 2, 3, and 4, to weigh descriptive action verbs (DAV), interpretative action verbs (IAV), state verbs (SV), and adjectives or nouns (ADJ/NOUN) respectively (Semin & Fiedler, 1989). The abstraction level of the emotion terms was calculated by the following formula:

$$\frac{(\text{nDAV} \times 1) + (\text{nIAV} \times 2) + (\text{nSV} \times 3) + (\text{nADJ/NOUN} \times 4)}{(\text{nDAV} + \text{nIAV} + \text{nSV} + \text{nADJ/NOUN}}$$

The abstraction level ranges from 1 (very concrete, only DAVs) to 4 (very abstract, only ADJ/NOUNs).

The linguistic *abstraction of the events* giving rise to emotions was scored in the same way as the emotion descriptions.

Results

Abstraction level of events and emotions. To test the prediction that Dutch event-descriptions are more abstract than the Turkish ones, a 2 (culture: Dutch vs. Turkish) × 2 (event valence: positive vs. negative) ANOVA was conducted. The second variable was a within-subjects variable and the level of abstraction of the event-descriptions constituted the dependent variable. As expected, the level of abstraction of the Dutch event-descriptions ($M = 1.76$: $SD = 0.44$) was higher than the level of abstraction of the Turkish event-descriptions ($M = 1.59$, $SD = 0.44$), $F(1, 154) = 5.59$, $p < .05$. The same analysis with the abstraction score of emotion terms allowed us to test the hypothesis that the Dutch used more abstract emotion terms than did the Turks. As expected, the Dutch described emotions more abstractly ($M = 3.96$, $SD = 0.14$) than did the Turks ($M = 3.68$, $SD = 0.49$), $F(1, 148) = 25.18$, $p < .001$.

Discussion

The results of this study provide additional support for the hypothesis that the language used to represent emotions and emotion events is more abstract in descriptions provided by members of a culture who emphasise the individual than members of cultures who value interdependence. The latter were found to use a more concrete language for the same tasks. These findings are convergent with earlier work on cultural differences in attributional tendencies (e.g., Miller, 1984; Morris & Peng, 1994; Shweder & Miller, 1985). It would appear to be the case that there are general cognitive differences between members of collectivistic and individualistic communities in the manner in which they represent and process information about their social world. Whereas collectivists display a stronger reliance on more concrete and immediate event-based representations

and processing of information, individualists appear to rely more on an abstracted, decontextualised coding and representation of events and persons. This general tendency is also reflected in the emotion vocabularies or the manner in which emotion is coded by the respective cultures.

GENERAL DISCUSSION AND CONCLUSIONS

The general pattern emerging from these two studies suggests that emotions and emotion events are more interpersonally configured within an interdependent cultural context than they are within an independent one. The first two converging sources of evidence come from the linguistic coding of emotions. We found that concrete emotion categories implying situated relationships are more accessible (Study 1) and that emotion events are more concretely described (Study 2) in interdependent cultural contexts relative to independent cultural contexts. The latter are more likely to access abstract emotion terms. Moreover, they are more inclined to describe emotion events abstractly.

The finding of concrete versus abstract descriptions of emotion events (Study 2) is in line with the research suggesting that contextualizing predicates are more prominently used in attributional explanations in cultures where interdependence is more prominent (e.g., Miller, 1984; Miller & Bersoff, 1992; Morris & Peng, 1994, inter alia). Moreover, this is also in line with the notion that the self itself is contextualised in such cultural contexts (e.g., Cousins, 1989; Markus & Kitayama, 1991). The argument developed here dovetails quite well with an observation that White (1994) makes. He notes that ''It is difficult for A'ara speakers to even talk about emotions as abstract or discrete states of mind independent of these context linkages'' (pp. 226–227). Furthermore, he notes that most vernacular terms used by the A'ara to denote emotions are verbs.

These findings are complemented by the second set of findings about the types of events that give rise to emotional experiences. In the first study, we found—again with two convergent methods—that for participants from an interdependent cultural background, such events are more likely to involve interpersonal situations than for participants from independent cultural contexts. The second study yielded convergent evidence. Representations of events were more concrete for the Turks and more abstract for the Dutch sample. Finally, the first study shows that significant others are seen as exerting a stronger influence on how such events are shaped in the case of interdependent participants.

The current research strategy of relying on self-generated emotions or emotion events rather than specifying a specific set of emotions presents some advantages over some other approaches in the comparative study of emotions. First of all, it avoids potential problems of focusing on a particular emotion rather than others. Frijda and Mesquita (1994) have for instance criticised ''the extent to which cross-cultural emotion psychology is plagued by a preoccupation with emotion labels'' (p. 82). Moreover, research in this field has often been

concerned with whether the specific events that give rise to particular emotions lead to comparable conclusions across cultures. This type of focus makes generalisation very difficult. Obviously, we are not suggesting that self-generation methods provide a panacea, but they present a possible avenue to examine general features of emotions that vary across cultures.

One of the more speculative implications of the current research has to do with the implications of the nature of relationships and how they are maintained. If it is the case that the formation of identities is predicated on relationships in an interdependent culture then it is inevitable that there is a relative permanence of relationships. That is, once relationships are formed they are more likely to be stable over time and the changes in this sphere are likely to be less variable than in an independent cultural context. In an independent culture, one would expect interpersonal relations to be more likely to have ''mobility''. In short, one would expect that interpersonal relationships do not have the same permanence as they do in interdependent cultures. Therefore, it is possible that interpersonal relationships are more strongly bounded by emotions in communities where interdependence is valued and they are more permanent whereas emotions in independent communities are more likely to be typified by the permeability of relationships. One way of speaking about experiences or events that are detached from distinctive events or situations is by resorting to abstraction. This is one possible sociocultural factor that may be regarded as contributing to the emergence, use of, and access to a more abstract vocabulary (e.g., nouns and adjectives).

Finally, the current work may have some implications for emotional communication. If the manner in which emotion is marked (relationship vs. self) differs systematically, as do the situations that give rise to it, then it is likely that there are subtle differences in the way interdependent and independent cultures engage in talking about emotions. This, in our view, is one of the interesting challenges for future research in this field. The findings in this study suggest that the communicative implications of emotion-talk are different to the extent that in an independent context talking about emotions is more likely to be an invitation to talk and analyse the self. In contrast, emotion-talk in an interdependent context is much more likely to be talk about a social event within which the self and others are interfaced. Moreover, this may also imply that emotion-talk has stronger action implications in interdependent cultures—namely, to undertake or do things jointly in contrast to an independent context where emotion talk may simply remain ''analytic talk''. Examining the general cultural features of the configuration of emotion-talk and its social implications, rather than of particular emotions, in our view, may open new vistas for comparative research in this field, as well as throw light on our own culture's conceptions of emotions.

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